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MANAGING YOUR STRATEGIC RESPONSIVENESS TO THE ENVIRONMENT

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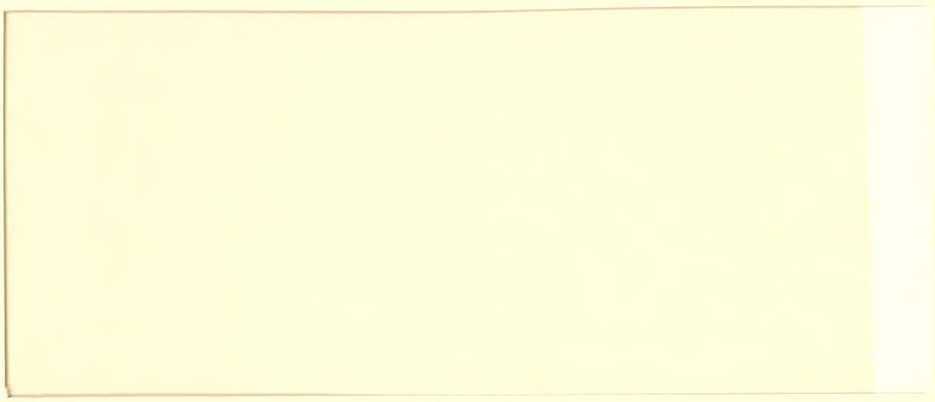

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Over the past few years, Vancil and Lorange have developed a conceptual framework for strategic long-range corporate planning which has been published in this magazine.[1] This framework emphasizes critical differences among the phases of planning, distinguishing between a phase for where to go (objective setting) and another phase for how to get there (programming and budgeting). Also, the scheme distinguishes among different strategic levels--the corporate portfolio strategizing level, the divisional business strategizing level, and the functional programming level. The thrust of the planning process is to provide a vehicle for making strategic decisions, emphasizing who is supposed to participate in what and when. In general, systems of the kind that Vancil and Lorange have suggested seem to be well-accepted among large, diversified corporations, many of which are using approaches that are quite similar conceptually, although, of course, each has tailored the approach to its own particular needs.

Extensive examinations of the functioning of planning systems of about two dozen large, diversified corporations, however, revealed a common underlying problem. This was an

[1]Lorange, Peter and Vancil, Richard F., "How to Design a Strategic Planning System," HBR, September-October, 1976.

Vancil, Richard F. and Lorange, Peter, "Strategic Planning in Diversified Companies," HBR, January-February, 1975.

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uncertainty about how to formally couple the firm's planning efforts with critical factors and trends in the firm's environment. The strategic planning systems we studied failed to help their corporations in two areas:

1. Assessing the riskiness of the various strategic options the company faces, i.e., in terms of opportunities and threats and not simply mechanically or mathematically.

2. Analyzing potential consequences of unforeseen environmental events so that the corporations can be better prepared to react.

Almost every company felt an increased need for adaptation to environmental opportunities and/or threats; the issue, however, seemed to be more one of how to reconcile such adaptation, which requires spontaneity, with the ongoing formal planning activities of the firm.

The formal planning process itself tended to detract from the necessary "confrontation" between line managers responsible for segments of a corporation's strategy and the environments in which they operated. Specifically, the system tended to develop in the managers some sense of "introversion", i.e., by having a planning system they feel

(falsely) that they have done their long-term planning. Therefore, they believe they are all right in terms of assessing the strategic future, when, in fact, such introverted long-range planning probably impedes strategic process in the long run rather than helps it. Thus although the conceptual scheme of Vancil and Lorange is indeed specific on the need to assess environmental opportunities and threats at several stages during the process, it appears that this aspect of the planning activity is easily suppressed. Not only that, but the situation seems to get worse as the system grows older, as the assessment of opportunities and threats becomes routine and even more sloppy and superficial. The epitome of this is, of course, the division manager who pulls out last year's business charter and revises it for an hour or two before submitting it this year, totally avoiding open-ended opportunity and threat analysis and falling with both feet into the trap of being entirely extrapolative.

In this article, we shall propose a few steps that might be taken in the planning process to strengthen its usefulness as a vehicle for strategic adaptation to the environment. Better environmental assessment will allow managers to grapple more effectively with the exposure of their strategic positions to various environmental forces, modifying as necessary their approaches towards achieving

their objectives. It will also facilitate the C.E.O.'s efforts to come up with a corporate portfolio strategy with an acceptable environmental risk exposure.

In order for planning to fulfill its role in a rapidly changing business environment, the company must develop the capability to assess the impact of and react to unexpected environmental developments. Accordingly, we are suggesting a way to relate the predictability of the firm's environment to its degree of discretionary response to the environment and to determine the strategic and managerial implications of this relationship. The approach allows a company to identify and pursue a set of strategies that represent acceptable levels of risk and return when seen as one corporate portfolio, while acknowledging the importance of the mix of risks, i.e., a mix of flexibility and predictability. It permits the development of strategic programs with options that are as flexible as possible.

Many management techniques do not make a managerial analysis of strategic risk-taking useful. The present approach is useful, in that it (a) breaks the problem down in an intuitively meaningful way, and (b) indicates how to go about attacking the issue as a process, not a technique. This approach has two premises:

1. The approach should not conflict with the mode of planning laid out already. Any approach towards strengthening the assessment of the environment, the opportunities and threats, and risk exposure must be easily reconcilable with the conceptual framework for planning already developed, and reinforce the analysis of the environmental exposure that it already presumes.

2. The approach must be simple. It must be intuitively useful and meaningful to managers in developing their planning inputs, and it must enable them to provide valuable inputs in planning reviews and to communicate on the substantive issues in the plans.

This paper will first outline a method for strategic risk assessment and then point out seven specific, practical uses for it, all part of incorporating this approach into the planning process. We shall suggest a way of thinking about key environmental factors that will put the task of scanning the environment into a better focus, in terms of connecting it to the process of allocating resources within the company.

THE APPROACH

Let us assume that the company is organized in such a way that it has allocated clear management responsibilities

for the development and execution of specific strategies to the management of the three strategic levels: corporate, divisional, and functional. The first step is to ask the manager responsible for a particular strategic plan, at whatever level, to list what he considers to be those environmental factors with the greatest potential impact on the outcome of his plan. Although it is admittedly a very difficult task to come up with an exhaustive list, a good manager should be able to pinpoint at least those areas that _might_ affect his plan. Since this step should never be viewed as anything more than a tool to begin the process, any reasonable list of environmental factors is better than no list.

For each of the environmental factors isolated, the manager should now ask two fundamental questions:

- To what extent am I able to _predict_ the _behavior_ and _effect_ of this factor?

- To what extent am I able to _react_ with a _discretionary response_ to this potential factor's development so that adverse effects can be reduced or ameliorated, or, alternatively, so that favorable effects can be taken advantage of?

Depending on the answer to each of these two questions, we shall classify each particular environmental factor in terms of which cell it falls into in the two dimensional matrices shown in Exhibits I and II.

The horizontal axis represents the range within which the manager can predict key environmental factors and the degree of importance of these factors. (For example, how predictable is the level of revenues? Furthermore, do changes in revenue have a significant effect on net profits?) The vertical axis represents the degree to which the manager can adjust tactics within a given strategy so that the adverse effects of environmental factors are minimized, and/or opportunities are appropriated. (For example, if revenues fall, to what degree can expenditures be reduced to maintain margins?)

We are now ready to display the relationship between sensitivity to the environment and capacity to respond to the changing environment. Such a display can serve a number of important functions which cover several dimensions of strategy analysis and development and can be used to encompass a rather large portion of the spectrum of issues which strategic planning needs to address.

USES

Taking this approach for assessing strategic riskiness strengthens several aspects of an existing Vancil/Lorange-type planning process; it does not institute a new and isolated technique. It particularly strengthens the adaptive planning emphasis, as can be seen in seven operational areas: risk/return profile, organizational control, and risk/cash flow profile (which are predominantly corporate-level concerns); strategic control, tracking change in the quality of strategies, improving strategy, and environmental scanning (which are predominantly divisional-level concerns).

Corporate Portfolio Strategizing Level

Corporate management is responsible for developing an overall strategy that encompasses assessment of corporate risk/return portfolio, capital allocations, review of the business charters proposed by the divisions, and selection of a desirable centralization/decentralization pattern for the corporation. To do this effectively, a strong awareness of the environment of the company as a whole is necessary. The overall corporate portfolio charter must be developed on the basis of a keen and realistic acknowledgement of the environmental factors that the parts of the firm are exposed

to. The challenge, of course, is to balance the environmental exposures for the various businesses so that from the corporate perspective the mix of opportunities and threats is reasonable, neither too risky nor too conservative.

Creative and innovative development of an overall corporate portfolio charter is often hampered by a lack of confrontation with the environment. This occurs for two reasons. First, the inputs from the various business divisions often tend to be extrapolative; they do not assess the opportunities and threats in the manner discussed above. Second, the corporate executives may easily fall into the trap of merely consolidating the inputs from the businesses without asking the fundamental question of what are the opportunities and threats to the company as a whole. Failure to ask that question means failure to see if the bottom-up consolidated inputs correspond with what a direct look at one's environment would suggest as attractive.

We can illustrate the usefulness of our general approach in terms of evaluating risk/return profile, organizational control, and risk/cash flow profile during the first objective-setting stage of consolidating the divisions' inputs into an overall corporate portfolio charter. Take as an example a major diversified corporation which was formed from a number of small companies that for years retained

near total independence in their operations. The corporation has five Strategy Centers: chemicals and plastics[V], air conditioning[W], financial[X], industrial products[Y], and transportation equipment[Z].

Each of these businesses can be placed in one of the cells in the matrix in Figure I by determining (1) whether the predictability and effect of the environmental factors that affect them is high or low, and (2) whether there is high or low potential for discretionary response to carry out corrective action in case of a change in the environment.

1. Risk/Return Profile

The risk/return profile of a business is determined by their relative position in the matrix as well as by their return. The closer a business is to the upper left corner of the matrix the lesser the risk, while the closer a business is to the lower right corner, the higher the risk.

This concept can be used to facilitate the selection of an appropriate risk/return portfolio, by indicating the risk/return of each division. Businesses that fall in the upper left corner of the matrix will be associated with relatively low risk/return positions while businesses that

fall in the lower right corner of the matrix are associated with high risk/return positions. This risk/return relationship is shown in Exhibit I, which displays the return of each business as a superscript.

The point is not that businesses in cell "4" are to be avoided in favor of those in cell "1," but rather, strategies in cell "4" should have higher return than those in cell "1." Obvious questions are raised by high returns to the left of the dotted line, and by low returns to the right of the dotted line. In addition (in the sample plots shown on Exhibit I), risk and return can actually be compared for such divergent exposures and are illustrated by Y^9 and W^9.

2. Organizational Control

An assessment of the strategic riskiness of the corporate portfolio would indicate the desirable pattern of centralization/decentralization in a company. This issue might be analyzed in terms of the environmental risks associated with each of the firm's businesses and the information-handling implications of the control methods thereby needed.

Formal evaluation of the organizational control of our example company is particularly important because of its

tradition of decentralization. By looking at the cell into which a given business is classified, we can determine the type of organizational control that should be applied to it. Management discovered that two of its businesses (Z and X) fall in the upper left corner of the matrix, since the environmental developments affecting these businesses are predictable and corrective action can be taken to reduce the impact of these developments. This type of business (high predictability--high discretionary response) usually has a relatively low implicit risk position, while requiring a large amount of information such a business should be managed in a decentralized fashion; it would be an unnecessary drain on top management's time to manage it in a centralized mode. On the other hand, management discovered that three of the businesses (Y, W, and V) fall in the lower right side of the matrix, indicating that these businesses are of a risky nature. However, since the volume of information required in this type of business is typically small, management should turn its attention to them and manage them in a centralized mode.

3. Risk/Cash Flow Profile

A central issue to be dealt with at the corporate portfolio strategizing level is to determine from which businesses excess funds should be taken and to which businesses they should go (e.g. from cash "cows" to "stars").

Risk/cash flow profile matches the dependability of the funds' source (a function of risk) to the flexibility of their user.

For example, a commitment to expand the chemicals and plastics group (V^{20}) which depends on funds from the low-risk transportation equipment division (Z^{5}) indicates a low-risk funds flow, while a commitment to expand the air conditioning group (W^{9}) which depends on funds from the expansion of the chemicals and plastics group (V^{20}) indicates a risky funds flow.

Thus the use of the "Risk/Cash Flow profile" allows management to evaluate the riskiness of its portfolio of cash flow strategies while raising one of the key issues in the management of funds flow, i.e., the trade off between depending for funds flows upon low-risk strategies with their inherent low return versus depending upon high return strategies with their inherent high risk and variability.

Divisional Business Strategizing Level (Exhibit II)

At this level, the managements of the various business divisions in a corporation need to assess the rationale for their own businesses; why are we in this business? what are the opportunities it offers? what threatens it? is my general concept of doing business worthwhile? and so on.

Failure to assess one's business charter in such an open-ended way means that the strategic direction of the firm in the years to come will be more or less an extrapolation of the past: opportunities might be wasted and unnecessary risks might build up. To avoid this situation, it is helpful for divisional management to have a highly systematic assessment of how its own business strategy is affected by different environmental factors.

The general approach we advocate is useful at the divisional level as a way of assessing environmental exposure relative to a strategic program. Our approach will evaluate strategic control, will track change in quality of the strategy, and will provide a framework for the improvement of the strategy.

Let us now look at a consumer product division of another large company, which embarked on a major strategic program to increase return on investment by increasing its market share of men's freon-propelled deodorants from 10% to 25% over a three-year period. The strategy called for the introduction of one or more new brands, and was to be carried out through increased advertising, introduction of new products and increased competitor surveillance. The divisional manager has selected the following factors as critical to the success of his strategy:

- The advertising campaign-(A)

- The public's response to the new brands(s)-(B)

- Government regulations-(C)

- The price of the product-(D)

4. Strategic Control

Although we are discussing strategic control as it applies to the divisional business strategizing level, it is important to remember that this concept also applies to the corporate level. Our approach to environmental assessment assists in the selection of an appropriate strategic control mode--that is to say, it can help in the decision: how to plan for predicted or unpredicted changes in the environment.

We shall suggest four different modes of strategic control, depending on whether the environmental factor is more or less predictable and its effect more or less major, and depending on whether there is high or low potential for discretionary response to carry out corrective action in case of an environmental phenomenon.

A. STEERING CONTROL for High Predictability - High Discretionary Response (cell "1")

This is a potentially ideal situation for effectively incorporating the effects of environmental factors. A manager exercises steering control when he is able to monitor the forecast and/or predictor(s) for the environmental phenomenon and has several tactical alternatives at his disposal for taking corrective actions when necessary. One might compare this discretionary situation with a rocket which is being monitored continuously in its flight towards a target and where small course corrections can be initiated when necessary.

One of the environmental factors affecting the strategy of increasing market share is the effectiveness of the advertising compaign (Factor A). Management, through steering control, is able to determine its effectiveness. If the advertising results are unsatisfactory then the manager has tactical alternatives at his disposal for taking corrective actions to adjust the campaign.

B. CONTINGENCY CONTROL for Low Predictability - High Discretionary Response (cell "2")

In this situation changes in the key environmental factors cannot be accurately predicted since the manager is unable to develop reliable predictors and must be content with merely monitoring these factors. However, the degree of discretionary response is high. Therefore, the manager is in a position to exercise contingency control by developing contingency tactics.*

One of the environmental factors affecting our example firm's strategy is the public's reaction to the new brand(s) of deodorants to be introduced (Factor B).

The predictability for the success of a given brand is low, but the manager could make up for this weakness by

*It should be noted that "contingency planning" has been hailed as a very desirable and useful approach for companies to follow during this age of rapid environmental change. Used in the particular context discussed here contingency control might indeed be useful. However, some firms also apply contingency control in situations where they could do better by making use of steering control; or, equally inappropriate, they make use of it in situations where it is inapplicable because of lack of real discretionary response options, as opposed to wishful thinking about hypothetical response options.

having a contingency plan, i.e., if brand "I" fails, he is able to exercise contingency control by shifting to brand "II."

C. ANTICIPATIVE CONTINUE/WITHDRAW CONTROL for High Predictability - Low Discretionary Response (cell "3")

In this situation good predictors can be identified; and, within a narrow range, the key environmental factors can be monitored. However, the degree of discretionary response is low since it is difficult to come up with realistic and viable options to change the tactics once a strategy has been instituted. The basic option for the manager is whether to continue the strategy or withdraw in light of the most recent forecast of the factor's development.

In this case the manager is able to predict with confidence a significant downturn in demand within five years, because of new government regulations on the use of "freon" on spray deodorants, (Factor C). However, the only responses available to him are to:

(a) Continue in the business even though there is little he can do to prevent the continuous decrease in demand, or

(b) Withdraw from the strategy by looking for a new use for the company's freon producing facilities or by selling these facilities.

D. POST-FACTO CONTINUE/WITHDRAW CONTROL for Low Predictability - Low Discretionary Response (cell "4")

When there is little potential for forecasting a phenomenon, as well as little potential for meaningful discretionary responses to modify a plan after the start of its implementation, then we have little control. There is much less opportunity to "cut losses" in such a situation. Perhaps, the most important aspect of post-facto continue/withdraw control is the post-facto analysis of why something went right or wrong so that the manager can systematically learn from experience.

As an example of this type of control, assume that the government decided to impose a sales tax on freon propelled deodorant rather than banning it, thereby increasing the sales price of the product (Factor D). If that were the case, the manager would again face a situation of deciding whether to continue with the strategy in spite of the changed condition, or withdraw from the strategy by closing down or selling the plant.

5. Tracking Change in the Quality of Each Strategy

If a given strategy is plotted for several years, the path of that strategy over time would indicate whether the quality of the strategy is improving or declining.

To illustrate, an important characteristic of the strategy of increasing the share of the men's freon propelled deodorant market was the predictability of its environmental factors. At the time the strategy was started "government regulations" were considered to be highly predictable and to allow a high degree of discretionary response since the freon controversy had not started yet; therefore, at that time the strategy fell in cell"1". Increased governmental regulation of the use of freon resulted in a progressive curtailment of management's ability to offset a drop in profits and a corresponding decline in the quality of the strategy.

Figure II shows how the overall strategy deteriorates; even although the return in investment for 1976 remains at 9%, the strategy has deteriorated since 1975 because the decline in the degree of discretionary response results in a more risky strategy without a corresponding increase in return. During 1977 the deterioration is more pronounced; at this time strict regulations became effective and the

decline in discretionary response was accompanied by decline in sales that resulted in lower return on investment (from 9% to 2%).

Of course, strategy could improve even if the degree of discretionary response or the range of predictability declines. Such improvement occurs when these declines are more than compensated by an increase in ROI. At this point it becomes a matter of judgement to determine if the strategy has deteriorated, remained unchanged, or improved, since management must decide if the increased returns justify the increased risk. Similarly, a strategy could deteriorate even if it becomes less risky, if returns decline below a level acceptable to management.

6. Provide a Framework for the Improvement of Strategy

Two key environmental factors usually affect a division's plan.

o Competitive strength (e.g., relative market share).

o Business Attractiveness (e.g., growth rate of primary demand).[3]

Both these factors can be considered in the predictability/discretionary response matrix, and the results of such analysis can help to improve strategy.

Competitive strength will typically be affected by moves of the firm's competitors, such as changes in price, the introduction of a new product, discovery of new processes, or entry into a new market. In some instances one might get "early warnings" of upcoming competitive moves, but usually they are discrete one-ship actions which are difficult to predict. Increasing R&D efforts and competitive surveillance can improve a firm's ability to predict any major actions by competitors, but only to a degree. However, the discretionary response to moves from competitors is usually high, since the firm can retaliate by adjusting its prices, increasing advertising, or developing and introducing new products. We might conclude that the "competitive strength" environmental factors often fall within the low predictability-high discretionary response area (cell 2).

3 Buzzell, R. D., Gale, B.T., and Sultan, R. G. M., "market Share--A Key to Profitability," HBR, January-February, 1975.

Schoeffler, S., Buzzell, R. D., and Heany, D. F., "Impact of Strategic Planning on Profit Performance," HBR, March-April, 1974.

The factors affecting "business attractiveness" are often associated with the nature of demand for a product, i.e., its stage in the product life cycle. There seem to be a number of general properties associated with the life cycle of a product, such as the nature of innovations (product versus process), the competitive mode (quality versus price), the number of competitors (many and in flux versus few and stable), and changes in the groth of demand itself. To some extent, the firm should be able to predict the development of the product life cycle. The firm's potential for discretionary response, however, is often limited. "Business attractiveness" environmental factors, therefore, often fall into the area of relatively high predictability-low discretionary response (cell 3).

Plotting the positions of environmental factors gives the manager a powerful tool to use in analyzing alternative strategies and strategic programs in view of their costs. It also allows him to improve an existing strategy or strategic program.

Particular emphasis should be put on "improving" a strategy/strategic program by improving the degree of predictability of one or more competitive strength factors. For example, one of the environmental factors affecting our example strategy is the public's reaction to the new brand(s)

of deodorant to be introduced. A more intensive research and development effort would increase the likelihood of developing a successful brand, an effort which would move these factors from cell 2 towards cell 1.

The development of means of discretionary response to one or more business attractiveness factors would also result in an improved strategy. This action would respond to the reduction in demand for freon propelled deodorants by shifting production to a non-freon type, and move the business attractiveness factor from cell 3 to cell 1.

Particular concern should arise, or course, if such "improvements" are not possible, if it turns out that the clustering of key environmental factors is shifting in the other direction, i.e. to cell 4 rather than to cell 1.

7. Provide a Context for Environmental Scanning

With the view of the matrix in mind, along with the use or uses to which it is put, the definition of the task of environmental scanning becomes much clearer. For example, the key environmental factors are identified, a "significant deviation" is identified, and information flows are indicated.

Functional Programming Level

At this level, strategic programs are concerned with how to reach particular strategic goals, and they are typically carried out through a collaboration among several functions within a division. Hence, a typical strategic program consists of a cross-functional set of activities, and these activities are often pursued without appropriate concern for what is happening in the environment. As illustrated in figure ___, some of the concepts discussed in this paper are also applicable to this level, and can be used to introduce a useful amount of environmental awareness.

CONCLUSION

We have proposed that environmental factors can be classified in terms of:

- The degree of predictability with which we might be able to monitor them.
- The degree of discretionary response potential the company has in reacting to the factors.
- Their impact on results.

This classification has several uses. First, it provides an analytical scheme such that environmental scanning can be carried out with the nature of environmental phenomena clearly in mind. Second, it indicates that different control modes can be more useful to monitor and respond to different types of environmental factors. Third, the risk associated with a strategy can be assessed by analyzing the types of environmental forces to which the plan is exposed. Finally, this type of analysis might improve plans so that unnecessary risk exposure is avoided.

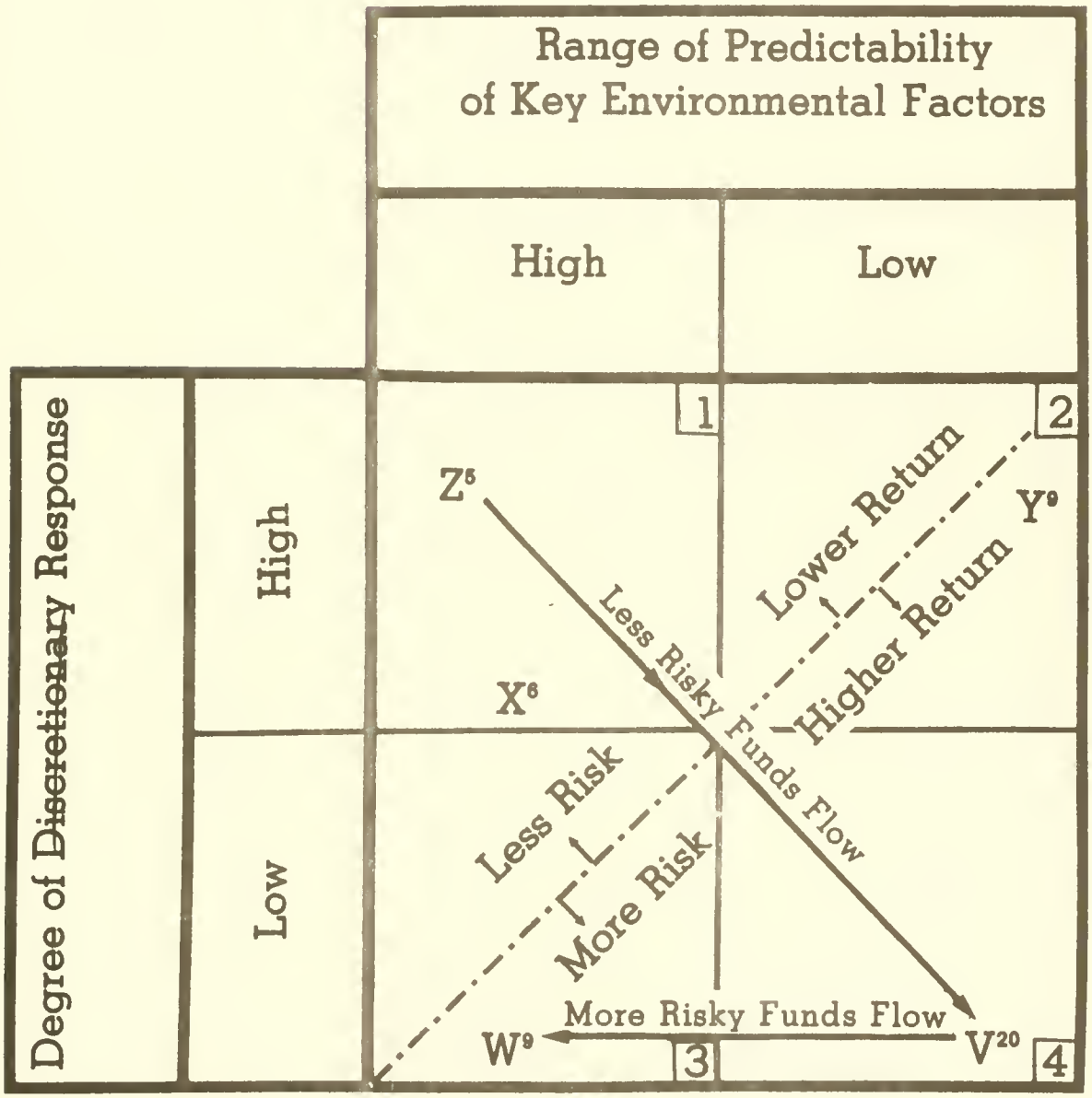
Incorporating this framework for strategic assessment and control of environmental factors should make strategic planning more responsive and flexible and thereby provide organizations with a valuable tool for coping with complex and unstable environments. The methods discussed in this paper are merely ways to improve the adaptation-related aspects of the planning process, based on the premise that better adaptation needs a more focused view of strategic exposure vis-a-vis the relevant environment.

Exhibit I

Corporate Portfolio Strategizing Level

Relation of Risk to Return

Risk Analysis of Funds Flow



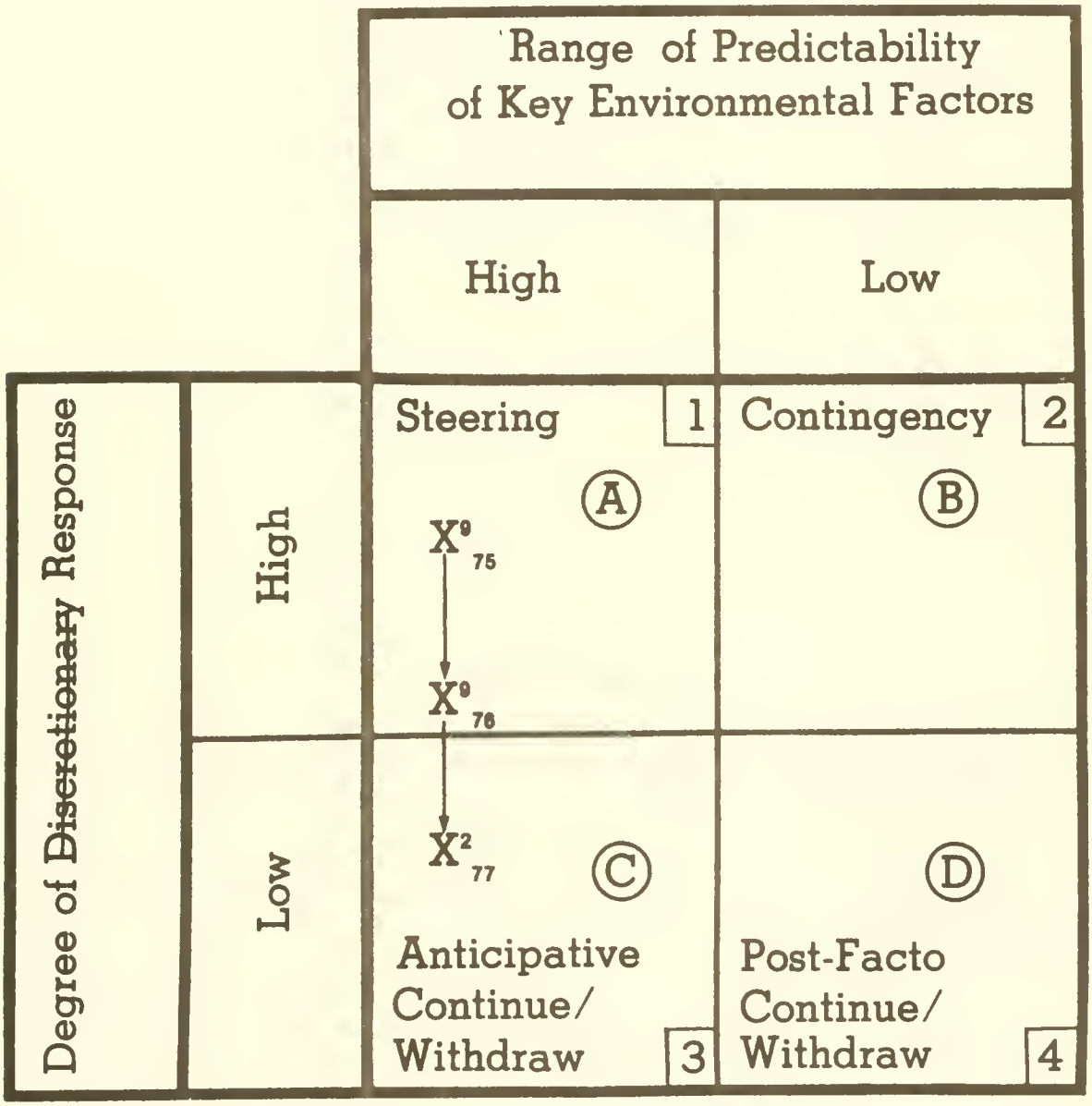
— Letter Indicates Strategy Center

— Superscript is Return on Investment

Exhibit II

Divisional Business Strategizing Level

Plot of Environmental Factors A, B, C,&D
Appropriate Modes for Strategic Control
Tracking Quality Changes of Strategies Over Time



—Circled Letters Indicate Environmental Factors
—"X" Indicates Strategy, Number Under the "X" Indicates Year.
Ex.: X_{76} Indicates Strategy "X" for 1976
—Superscript Indicates Return on Investment

Exhibit III

Operational areas in which strategic responsiveness to the environment can be exercised and at which level.

	Organizational Control	Risk/Return Portfolio	Risk/ Cash Flow Profile	Strategic Control	Tracks Change	Competitive Strength & Business Attractiveness	Context for Environmental Scanning
1st. Level (Corporate)	X	X	X	X	X	X	
2nd. Level (Division)	X	—	—	X	X	X	
3rd. Level (Function)	—	—	—	—			

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